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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,174	03/02/2004	Seiji Ashida	009270-0308377	3541
909	7590	03/24/2006	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102			QUARTERMAN, KEVIN J	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

EJL

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/790,174	ASHIDA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kevin Quarterman	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 January 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 1,3,6,8 and 16-19 is/are allowed.  
 6) Claim(s) 2,10-15,20 and 21 is/are rejected.  
 7) Claim(s) 4,5,7 and 9 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 02 March 2004 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1.) Certified copies of the priority documents have been received.  
 2.) Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3.) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date. _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Response to Amendment***

1. Applicant's amendment and remarks received 04 January 2006 have been entered and overcome the objection to the title and claim 13.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2, 10-12, and 14-15, and 20-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Hansler (US 4,935,668).

4. Regarding independent claim 2, Figure 4 of Hansler shows a discharge lamp including an arc tube (46), the arc tube comprising a discharge chamber having a pair of end sections; a pair of feedthroughs (38, 40), each of the feedthroughs being hermetically sealed within one of the end sections of the discharge chamber, respectively; and a pair of electrodes (30, 32), each of the electrodes being connected to one of the feedthroughs, wherein the discharge chamber is filled with a discharge medium including a metal halide and a starting gas (col. 5, ln. 38-39), and wherein the metal halide comprises at least halides of Na, Tl, In, and Tm (col. 5, Table 1).

5. Regarding claim 10, the Examiner notes that expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim (MPEP § 2115). Thus, the claimed properties of the

light emitted by the lamp have not been given patentable weight, since they do not add any structural limitation to the claim.

6. Regarding claim 11, the Examiner notes that expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim (MPEP § 2115). Thus, the claimed properties of the light emitted by the lamp have not been given patentable weight, since they do not add any structural limitation to the claim.

7. Regarding claim 12, Figure 4 of Hansler shows an outer jacket (48) hermetically enclosing the arc tube, and a pair of feeder members (42, 44), which are configured to support and position the arc tube relative to the outer jacket, wherein the pair of feeder members is sealed within an area of the outer jacket and is electrically connected to the feedthroughs.

8. Regarding claim 14, Hansler discloses a lighting circuit configured to supply a voltage to the lamp (col. 8, ln. 55-65). The Examiner notes that expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim (MPEP § 2115). Thus, the lamp voltage properties when the lamp is lit have not been given patentable weight, since they do not add any structural limitation to the claim.

9. Regarding claim 15, Hansler discloses a lighting circuit configured to supply a voltage to the lamp (col. 8, ln. 55-65). The Examiner notes that expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim (MPEP § 2115). Thus, the lighting

circuit having a dimming operation has not been given patentable weight, since it does not add any structural limitation to the claim.

10. Regarding claim 20, Figure 4 of Hansler shows an outer jacket (48) hermetically enclosing the arc tube.

11. Regarding claim 21, Figure 4 of Hansler shows a pair of feeder members (42, 44) configured to support and position the arc tube within an end of the outer jacket, the feeder member being sealed within an end of the outer jacket and electrically connected to the feedthroughs.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hansler (US 4,935,668) in view of Higashi (US 4,024,425).

14. Regarding claim 13, Hansler teaches each of the limitations of independent claim 2, as discussed earlier, but fails to exemplify an inner shroud disposed within the outer jacket and surrounding the arc tube, the shroud being made of glass.

15. Figure 1 of Higashi shows a discharge lamp including an outer jacket (1), which hermetically encloses the arc tube (2) and an inner shroud disposed within the outer jacket (1) and surrounding the arc tube, the shroud being made of glass (col. 2, ln. 5).

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16. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the discharge lamp of Hansler with an inner shroud disposed within the outer jacket, as taught by Higashi, for supporting the arc tube.

***Allowable Subject Matter***

17. Claims 1, 3, 6, 8, and 16-19 are allowed.

18. Claims 4-5, 7, and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

19. The following is a statement of reasons for the indication of allowable subject matter: In the remarks received 04 January 2006, applicant noted the criticality of the mixture of metal halides, which was not recognized by Hansler. Applicant's remarks are persuasive.

20. Thus, regarding independent claim 1 and claim 5, the prior art of record neither shows or suggests a high-intensity discharge lamp including, in addition to other limitations of the claims, a discharge chamber filled with a discharge medium including a metal halide and the a starting gas, the metal halide comprising at least halides of Na, Ti, and Tm, wherein the ration of the mass MTm of Tm halide to the total mass M of the metal halide is within a range of about  $0.4 \leq MTm/M \leq 0.9$ . Due to their dependency upon independent claim 1, claims 3 and 16-19 are also allowable.

21. Regarding claim 4 and independent claim 6, the prior art of record neither shows or suggests a high-intensity discharge lamp including, in addition to other limitations of

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the claims, a discharge chamber filled with a discharge medium including a metal halide and the a starting gas, the metal halide comprising at least halides of Na, Tl, In, and Tm, wherein the ration of the mass MTm of Tm halide to the total mass M of the metal halide is within a range of about  $0.4 \leq MTm/M \leq 0.9$ , and wherein the total mass of the halides of Na, Tl, In, Tm halides is greater than 90% of the total mass M of the metal halide.

Due to its dependency upon independent claim 6, claim 8 is also allowable. Due to its dependency upon claim 4, claim 9 is also allowable.

22. Regarding claim 7, the prior art of record neither shows or suggests a high-intensity discharge lamp comprising, in addition to other limitations of the claim, a ratio  $(MTm + MTl + MIn)/M$  of the sum of the mass MTm of the Tm halide and the mass MTl of the Tl halide and the mass MIn of the In halide to the total mass M of the metal halide being within a range of about  $0.61 \leq (MTm + MTl + MIn)/M \leq 0.9$ , and wherein the ratio  $(MIn/M)$  of the mass of the In halide to the total mass M of the metal halide is within a range of about  $0.01 \leq MIn/M \leq 0.1$ .

### ***Response to Arguments***

23. Applicant's arguments regarding independent claim 2 have been fully considered but they are not persuasive.

24. In response to applicant's argument, regarding independent claim 2, that Hansler does not disclose the discharge chamber filled with a discharge medium including a metal halide and a starting gas, wherein the metal halide comprises at least halides of Na, Tl, In, and Tm, the Examiner respectfully disagrees. Applicant's position is that since Hansler does not teach the particular species recited in claim 2, but instead teach

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a genus including a list of metal halides, Hansler cannot anticipate claim 2. Applicant also cites MPEP § 2131.02 to support this position. Also referring to this citation, the Examiner notes, "a reference that clearly names the claimed species anticipates the claim no matter how many other species are named." Therefore, since the list disclosed by Hansler clearly names the metal halides recited in claim 2, Hansler does indeed anticipate the claim.

25. In response to applicant's argument that independent claim 2 is not rendered obvious based on Hansler since Hansler fails to recognize the criticality of the mixture of metal halides, the Examiner notes that an anticipatory analysis is applied to independent claim 2.

### ***Conclusion***

26. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

27. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quarterman whose telephone number is (571) 272-2461. The examiner can normally be reached on M-TH (7-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Quarterman  
Examiner  
Art Unit 2879

kq   
19 March 2006

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